AMSAT News Service Weekly Bulletins
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SB ALL @ AMSAT $ANS-118.01
AO-13 "DX-PEDITION" TO UA4P

HR AMSAT NEWS SERVICE BULLETIN 118.01 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1989
TO ALL RADIO AMATEURS BT

AO-13 "DX-Pedition" Planned For UA4P In July; 70cm All-Mode Rig Needed

Noted DXers Jim Hartwell (K7UDG) and Gene Kestromin (UA4RZ) are presently in the final stages of organizing a "DX-pedition" to the Soviet Union commencing on July 4, 1989 in the city of Kazan, USSR and finishing near the Caspian Sea on July 16th. Jim, representing the Western Washington DX Club, and Gene, President of the Ziland DX Club, are happy to announce that they have recently received permission from CCCP (the Soviet "FCC equivalent") to also include AO-13 operations in this joint US-USSR "DX operation." Although the main emphasis of this DX effort will be on HF, UA4RZ says that AO-13 operations will also be included whenever AO-13 is visible and Mode B or Mode JL operation is possible. All the necessary antennas are being constructed by the Ziland DX Club and they presently have a 2m all-mode "homebrew" transceiver. Because of the difficulty the members of the Ziland DX Club have in obtaining commercial UHF equipment and even harder time obtaining parts in order to construct a 70cm rig, Jim Hartwell (K7UDG) would like to make an appeal to all OSCAR satellite users who might be willing to donate a 70cm all-mode transceiver to the Ziland DX Club. Jim wants to emphasis that once this joint US-USSR "DX-pedition" is over, the "donated" 70cm rig will become part of a PERMANENT AO-13 station in the Ziland DX Club in Kazan. UA4RZ has indicated that the Ziland DX Club is about to acquire a "rather old" IBM PC which will be used to track AO-13 and RS 10/11. The Ziland DX Club currently consists of about 100 active members who are very excited about the possibility of working AO-13 from their club station, UA4P. Gene also says that the CCCP has also given them permission to use the AMSAT MICROSAT/PACSATs which are scheduled to be launched later this year aboard a ARIANE IV rocket. But without a UHF rig, not only will the AO-13 "DX operation" from the city of Kazan not be possible, but there will be one less AO-13 station active from the USSR. If you own a "spare" 70cm all-mode rig which you are not currently using and or you wish to donate to this worthy cause, please get in touch with:

Jim Hartwell, K7UDG
12608 Machias Cutoff
Lake Stevens, WA
98258
Phone: (206) 487-7441

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SB ALL @ AMSAT $ANS-118.03
MICROSAT PROGRESS REPORT #3

HR AMSAT NEWS SERVICE BULLETIN 118.03 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1989
TO ALL RADIO AMATEURS BT

MICROSAT Progress Report #3 From the MICROSAT LAB In Boulder, CO

Jeff Zerr, AMSAT-NA's Engineer in Charge of Mechanical Assembly has the

following items to report from the MICROSAT Laboratory located in Boulder, CO:

1) AMSAT-NA has taken delivery on the first of four "custom built" carrying-cases which will be used to transport each of the four MICROSATs to Kourou, Fr. Guiana. These little "suitcases" had to be specially designed to hold the MICROSATs on a carefully designed platform that has its own "shock-absorbers." Jeff reports that they are pleased with the design of the carrying-cases. Each case measures 2.5 ft by 1.5 ft by 1.5 ft.

2) All of the solar arrays have been mounted to the "honey-comb" panels for all of the four MICROSATs. They have also been "electrically" wired together. Jeff points out that "sodering" the wires to each of the panels was an extremely delicate operation. If too much heat is applied, the solar cell "clip" will crack.

3) All the transmitter modules are coming together quite nicely. The electrical parts are being procured. Custom made "standoffs" were completed which will hold the circuit boards inside the small 1 inch thick modules.

4) One of the results of the "battery fit check" was that there was a "clearance" problem which had to be resolved. Jeff reports that the battery "cradles" have been reworked and an "extra" 1.5 mm was found to solve the problem. The batteries are glued into their respective "cradles."

5) Flight prototype printed circuit boards have been completed by Matjaz Vidmar, YT3MV, for both the 70cm transmitter and the 2m transmitter.

6) The onboard digital computer has now moved from the design phase, "bread-board phase," and is now being fabricated and is ready to be installed into the first MICROSAT.

Jeff says that the final integration date of each of the MICROSATs is still May 15, 1989. Volunteers are very much needed; you don't have to live in Colorado to make a contribution to the MICROSAT construction effort. If you would like to help AMSAT-NA in this construction effort, contact Jeff Zerr at (301) 530-7233.

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SB ALL @ AMSAT $ANS-118.04
AO-13 OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 118.04 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1989
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AO-13 Operations Net Schedule For May & June

Many AO-13 users are unaware that there is an AMSAT Operations Net which is conducted on AO-13 several times each month to help answer questions about OSCAR satellites and to provide information about the many exciting things going on in AMSAT. The following is a list of the times for the Ops Net. Please place this list in a convenient place in your OSCAR station so that you won't miss out on this interesting net which is offered as a service to all AMSAT members.

Here is the Ops Net schedule through June:

Date	UTC	orb-phs	NCS
29 Apr	1700	671-231	WA5ZIB (45 minutes)

*** satellite schedule and orientation change anticipated ***

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07 May  0300    687-116   N5BF   (06 May local time, U.S.)
14 May  0400    702-056   N5BF   (13 May local time, U.S.)
21 May  0200    716-188          (20 May local)
28 May  0200    731-105          (27 May local)

04 Jun  0300    746-045          (03 Jun local)
11 Jun  0000    760-152          (10 Jun local)
18 Jun  0100    775-092   W0RPK  (17 Jun local)
25 Jun  0300    790-055          (24 Jun local)
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Nets can be held on B or JL, but if the AO-13 satellite schedule is changed such that the Ops Net falls during an "off" period, it will be rescheduled. Frequencies are 145.950 MHz up and 435.970 MHz up. All these are for AO-13, but AO-10 is sometimes used, when available.

Again, the scheduling constraints now used are:

1) The satellite(s) used will be in view of at least the 48 states at the beginning of the Net and for 45 minutes thereafter.
2) The Ops Net will not start before 5 A.M. Pacific time.
3) The Ops Net will not start after midnight Eastern time.

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SB ALL @ AMSAT $ANS-118.05
FO-12 OPERATING SCHEDULE

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SILVER SPRING, MD APRIL 28, 1989
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FO-12 Operating Schedule For May & June

The following is the operating schedule for FO-12 for the entire month of May and June:

DATE	MODE	OPERATING PERIOD
05/03/89	JA	07:15 UTC until 15:26 UTC
05/06/89	JA	14:46 UTC until 05:40 UTC on 05/07/89
05/09/89	JA	05:53 UTC until 14:05 UTC
05/21/89	JD	03:11 UTC until 11:23 UTC
05/24/89	JD	08:41 UTC until 01:37 UTC on 05/25/89
05/28/89	JD	00:56 UTC until 09:08 UTC
06/03/89	JD	05:46 UTC until 00:44 UTC on 06/04/89
06/09/89	JA	04:25 UTC until 21:20 UTC
06/21/89	JA	01:43 UTC until 18:38 UTC
06/24/89	JA	01:03 UTC until 17:58 UTC
06/29/89	JA	00:35 UTC until 15:29 UTC

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SB ALL @ AMSAT $ANS-118.06
AMSAT SHORT BURSTS

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SILVER SPRING, MD APRIL 28, 1989
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Short Bursts

On May 3, 1989 there will commence a spacecraft attitude change for AO-13 in order to compensate for changing sun angles. This will necessitate a transponder schedule change in order to readjust the Mode

JL operating time. The new schedule is as follows:

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de VK5AGR 15Apr89:   ***  AO-13 TRANSPONDER SCHEDULE ***
          Until 03May89           !   03May89 to 14Jun89
Mode-B  : from  MA 100 to MA 160  !  from  MA   3 to MA 160
Mode-JL : from  MA 160 to MA 200  !  from  MA 160 to MA 200
Mode-B  : from  MA 200 to MA 256  !  from  MA 200 to MA 240
OFF     : from  MA   0 to MA 100  !  from  MA 240 to MA   3
Mode S Beacon 2400.661MHz ON from MA 210 to MA 222 every orbit.
03Apr89: ALON/ALAT 212.0/+2.0 drift 0.016/-0.061 deg/day.
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Space Shuttle Astronaut Ken Cameron recently passed his Amateur Extra Class license and became KB5AWP. Ken is presently scheduled to fly on STS-37 which has a planned lift-off date of April 5, 1990. Under the "tutelage" of AMSAT-NA member Lou McFadden, W5DID, Ken was able to "swoop" through all the various parts of the licensing process. Look for Ken's call sometime in the near future: "This is KB5AWP/Space Mobile."

Roy Welch, W0SL, has just recently finished putting the "finishing touches" on his ORBITS II, ORBITS III, and ORBITS IV satellite tracking programs. One of the most notable aspects of the ORBITS IV program is that it will support VGA graphics monitors. If you would like to find out more about these fine tracking programs and the features which they possess, send a s.a.s.e. to:

Roy Welch, W0SL
908 Dutch Mill Dr.
Manchester, MO 63011

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